ADMINISTRATION REPORT OF MILITARY WORKS

OF THE

PUBLIC WORKS DEPARTMENT,

(GENERAL BRANCH),

BOMBAY PRESIDENCY,

FOR THE YEAR

1892-93.

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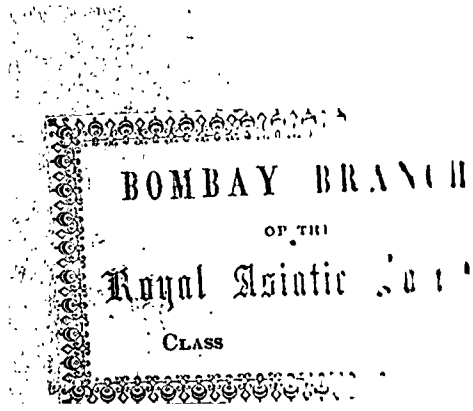

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MILITARY WORKS.

GENERAL REMARKS.

1. The following stations remained under the control of the Bombay Public Works Department during the year :—

Poona District.

Ahmednagar.	Purandhar.
Sirúr.	Khandála.,

Sátára.

Bombay District.

Mælegaon.	Baroda.
Bhúj.	Surat.

Thána.

Deesa District.

Ahmedabad.	Rájkot.

2. In paragraph 2 of the last report, and in the report for 1890-91, the question of the loss to Provincial Revenues by the transfer of Military Works at the larger stations to the control of the Director General of Military Works, was referred to, and it was stated that this Government had preferred a claim for compensation to the amount of Rs. 70,000, but that the Government of India had refused to entertain it in full, though they had agreed to share the loss; and that as this decision was not considered equitable by this Government, and an agreement could not be come to, the matter had been referred to the Secretary of State for final orders, which were awaited. His Lordship's decision was communicated to this Government by the Government of India, and conveyed his opinion that that Government had met the claim advanced in an adequate manner by offering to allow to the Bombay Provincial Revenues a sum of Rs. 35,000. In accordance with this decision, an adjustment to that extent for each of the years 1890-91 and 1891-92, has accordingly been made by the Government of India; and an increase of Rs. 70,000 has also has been made by the local Financial Department to the Public Works Provincial assignment for the year.

3. The expenditure during the year on Military Works (including contributions), amounted to Rs. 1,90,621, of which Rs. 50,075 was for original works, Rs. 86,292 for repairs, Rs. 29,877 for establishment, Rs. 2,008 for tools and plant, and Rs. 22,369 for Barrack Department.

4. The works carried out during the year under each head were as follows :—

I.—ACCOMMODATION FOR TROOPS.

Buildings for European Troops in the Plains.

5. The only work coming under this head in the Ahmedabad District was the carrying out of special repairs to No. IV. old Persian Barrack, R. A., at Ahmedabad Camp, of which the roof was put into thorough repair at a cost of Rs. 4,057. Sanction for similar work to the corresponding building No. XX., in the British Infantry Lines, was received, and funds for this work have been provided in the budget for 1893-94. Ahmedabad.

BUILDINGS FOR EUROPEAN TROOPS IN THE HILLS—PERMANENT.

Purandhar. 6. The re-roofing of Barracks Nos. 1 and 2 at Purandhar, described in last year's report, has been completed at a total expenditure of Rs. 15,510, of which Rs. 5,014 were spent during the year, against the estimate of Rs. 15,525.

7. The work of fixing iron gutters to the eaves of the four barracks, at an estimated cost of Rs. 2,747, was in progress during the year, and will be completed early in 1893-94.

Khandála. 8. The Regimental Institute, including canteen and cook-house, at Khandála, was completed, with the exception of colouring and fixing window bonnets. The estimated amount is Rs. 19,162, and Rs. 18,474 were expended. The Institute consists of a refreshment room, 24′ × 36′; a billiard room, 28′ × 24′; a temperance room, 24′ × 20′; librarian's quarters, 22⅞′ × 16′; library, 22½′ × 17′; a store room, 11½′ × 9′; issue room, 12′ × 9′; caterer's room, 22⅞′ × 16′, and a verandah 10′·9″ wide, in front of billiard and temperance rooms. The canteen consists of 1 private room, 20′ × 24′, 1 room 12′ × 20′, divided by an iron railing (grille) into two rooms, *viz.* store and issue rooms, 12′ × 12′ and 8′ × 12′, respectively; one corporal's room, 10½′ × 20′, and an open verandah, 8′ wide. The cook-house for the Regimental Institute is 15′ × 10′ inside dimensions, with a verandah 5 feet wide in front.

BUILDINGS FOR NATIVE TROOPS.

Bhúj. 9. A new magazine for storing small arms ammunition, which was reported to be in progress in the last report, was completed during the year, at a cost of Rs. 7,802, against the sanctioned estimate of Rs. 9,300. Rs. 443 were expended during the year.

5.—STUD.

10. A new work-shed, 78′ × 20′, divided into two compartments, for carpenters and blacksmiths, respectively, was constructed for the Remount Depôt, at a cost of Rs. 2,446; and the gear godown of the depôt was specially repaired and provided with stone flooring at a cost of Rs. 490.

7.—GENERAL CANTONMENT WORKS—WATER SUPPLY.

11. The works at the *Pashan Tank*, as well as the pipes, cisterns, &c. for the water supply of Kirkee, were maintained in an efficient state, at a total cost of Rs. 2,334; this includes Rs. 747 for establishment.

Ahmednagar. 12. Rs. 899 were expended during the year on maintenance and repairs to the *Bhingar aqueduct*, from which the Sudder Bazaar and the European Infantry and Artillery Barracks are supplied with water. This old Mahomedan work, on which large sums have from time to time been expended by the British Government, who practically re-discovered and reconstructed it, has recently formed the subject of a lengthy civil suit, by which certain inhabitants of the town of Bhingar, through which the duct passes, sought to obtain a decree entitling them to the uncontrolled use of the water; the direct cause of the suit being the measures taken by Government to conserve the supply and prevent waste during the recent three years of scanty rainfall. The result of the suit, if the decree of the District Court be upheld, is eminently satisfactory to Government, and as even in the three consecutive years of scanty rainfall, the supply in the aqueduct was by careful management made to serve all wants, it is believed that with the establishment, by the Court's decree, of the absolute possession of the water by Government, subject only to a trivial "user" in the town of Bhingar, there need be no anxiety even in years of scanty rainfall, as to the sufficiency for the camp of this the main source of its supply.

Sátára. 13. The work in connection with the Sátára Camp water-supply has been fully described in the last report. As mentioned therein, a revised estimate, amounting to Rs. 70,465, against the original estimate of Rs. 51,970, was prepared and submitted for the sanction of Government. The main features of the revised estimate were the following:—

(1). Distribution service.—The pipes originally provided for the distributing service from the service reservoir, were of insufficient diameter, and in the revised estimate pipes of sizes varying from 2 inches upwards have been provided, according to calculations based on the assumption that the distributing pipes should be large enough to give the required daily supply in 6 hours' time.

(2). The filter beds have been greatly modified. Instead of two chambers, according to the original estimate, three chambers have now been provided, each 46 × 22 × 8 feet, with an inlet chamber 10 feet square, above the filter beds. Each filter chamber is calculated

filter 50,600 gallons, or half a day's supply, in 24 hours' time. By three chambers being provided, two of the filter beds will always be in operation, while the third is being cleaned out. To regulate the rate of filtration, three chambers are provided, in which a constant level of water is to be maintained. From these chambers water will flow into the next adjoining three chambers through a notch provided for the purpose, which is so provided that the discharge through each notch will be 50,400 gallons per diem, or half a day's supply.

(3). Originally it was proposed to draw water for the camp supply from the city main from Kas, at a point west of the tunnel, and before the distribution to the city commences; but now the City Municipality having contemplated constructing storage and service reservoir for their water-supply system, provision has been made in the estimate to draw off the supply for the camp directly from the City service reservoir.

(4). Two new two inches branches, *viz.*, one to supply the bungalow beyond the Roman Catholic chapel, and the other to supply the Post Office, American Mission House, &c., have been for the first time provided in the revised estimate. The length of the "Gordon Lines'" branch has been increased, from 600 feet in the original estimate, to 1,320 feet in the revised estimate.

(5). In addition to 6 hydrants with paving to each in the Sadar Bazár, already provided in the original, 12 fire hydrants, to be erected on suitable sites, to be hereafter settled, have been provided for in the revised estimate.

14. The work of constructing the settling tank and filter beds was taken in hand and nearly completed by the end of the year. The total expenditure during the year amounted to Rs. 15,382, and from the commencement to Rs. 40,332.

VIII.—Fortifications.

Ahmedabad.

15. The improvements to the Fortified Post, described in the last report, were completed at a total cost of Rs. 6,985, against the sanctioned estimate of Rs. 7,524, the expenditure incurred during the year being Rs. 557.

Purandhar.

16. The work in connection with the Purandhar fort, commenced in the past year, could not be completed during the year as expected, owing to the situation being such that a large number of men cannot be employed. During the year Rs. 1,410 were spent, making a total of Rs. 3,402, against the estimate of Rs. 4,363.

Ahmednagar.

17. Various minor works were carried out during the year in the fort at Ahmednagar. An upper room over the main gate was altered, at a cost of Rs. 222, to receive a Gardner gun. The parapets of bastions Nos. 4, 17 and 22 were cut down, at an outlay of Rs. 438, to a suitable level, to enable the 12-pounder field guns mounted on them to fire *en barbette*. The large bastion No. 9 was similarly treated and strongly paved with the same object, at an expenditure of Rs. 706. Hand rails were fixed to the approach steps to the terréplein and to narrow places on the walls which were considered dangerous, at a cost of Rs. 1,598, and many trees were removed from the fort ditch. It is proposed to provide expense magazines on bastions Nos. 4, 9 and 22 for the 12 pounders, and on No. 1 for the Gardner gun, and one or two other minor works are also contemplated.

Malegaon.

18. The conversion of the old Arsenal at Malegaon into a *Fortified Post* was in progress. The design and estimate for this work were prepared after inspection of the old buildings by the Executive Engineer, Military Works, Poona; and embraced the removal of all outside buildings, the conversion of the store room at the south-west corner into a caponier, from which the west and south sides would be commanded; the construction of a small caponier, $23\frac{1}{2}' \times 12\frac{1}{2}'$, at the north-east corner to command the north and east sides; the raising of the east and west walls and providing loopholes and banquettes to all the walls; also the construction of a new steel-plated gate for the main entrance on the west side, all other gateways being built up. The original estimated cost of the work was Rs. 1,603, but as several items had been omitted, a revised estimate, amounting to Rs. 2,011, became necessary. The expenditure during the year was Rs. 1,728, and, with the exception of the steel-plated main gate, the work was, at the end of the year, practically completed.

Miscellaneous.

19. At other stations no new works of any importance were carried out during the year; the operations were confined to minor works and the maintenance and repairs of the existing buildings.

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